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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/735,012

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Richard L. Abrahams

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04/19/2006

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EXAMINER

HAROON, ADEEL

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/735,012	<b>Applicant(s)</b> ABRAHAMS ET AL.	
	<b>Examiner</b> Adeel Haroon	<b>Art Unit</b> 2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Priority***

1. The applicant claims benefit of provisional application 60/436,061; however, this provisional application number is not consistent with PTO records.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-7 and 10-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Fourtet et al. (U.S. 6,625,470).

With respect to claim 1, Fourtet et al. disclose multiple band transmitter in figure

1. Fourtet et al. disclose a first transmit amplifier path, element numbers 2 and 4, conducting a first transmit signal at a first frequency band (Column 5, lines 16-32).

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Fourtet et al. also disclose a second transmit amplifier path, element numbers 3 and 5, conducting a second transmit signal at a second frequency band with an amplifier, element number 3, that generates second transmit signal and a harmonic frequency within a passband of first transmit amplifier path (Column 5, lines 16-32). Fourtet et al. further disclose a trap circuit, element number 6, coupled to the output of the amplifier that shunts the harmonic frequency (Column 5, lines 55-64).

With respect to claim 2, Fourtet et al. teach the trap circuit comprising a series LC circuit (Column 3, lines 14-17).

With respect to claim 3, Fourtet et al. teach that the trap circuit is tuned to a second harmonic frequency of said second frequency band (Column 5, lines 43-54).

With respect to claim 4, Fourtet et al. teach a series LC circuit as a trap circuit that must have a load in the amplifier path (Column 3, lines 14-17).

With respect to claim 5, Fourtet et al. teach the trap circuit comprises a transmission line (Column 3, lines 19-29).

With respect to claim 6, Fourtet et al. teach that the trap circuit is tuned to a second harmonic frequency of said second frequency band (Column 5, lines 43-54).

With respect to claim 7, Fourtet et al. teach that the length of the transmission line is dependent of the wavelength of the harmonic frequency thus being one-half of the wavelength (Column 3, lines 19-29).

With respect to claim 10, Fourtet et al. disclose multiple band transmitter in figure 1. Fourtet et al. disclose plurality of amplifier paths, each amplifying a corresponding transmit signal at a corresponding frequency band, including a first amplifier path that

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generates a harmonic frequency within a passband of at least one other of said plurality of amplifier paths (Column 5, lines 16-32). Fourtet et al. disclose a trap circuit, coupled to said first amplifier path, that shunts said harmonic frequency to ground (Column 5, lines 55-64).

With respect to claim 11, Fourtet et al. teach the trap circuit comprising a series LC circuit (Column 3, lines 14-17).

With respect to claim 12, Fourtet et al. teach that the trap circuit is tuned to a second harmonic frequency of said second frequency band (Column 5, lines 43-54).

With respect to claim 13, Fourtet et al. teach a series LC circuit as a trap circuit that must have a load in the amplifier path (Column 3, lines 14-17).

With respect to claim 14, Fourtet et al. teach the trap circuit comprises a transmission line (Column 3, lines 19-29).

With respect to claim 15, Fourtet et al. teach that the trap circuit is tuned to a second harmonic frequency of said second frequency band (Column 5, lines 43-54).

With respect to claim 16, Fourtet et al. teach that the length of the transmission line is dependent of the wavelength of the harmonic frequency thus being one-half of the wavelength (Column 3, lines 19-29).

With respect to claim 17, Fourtet et al. disclose a first amplifier path includes a power amplifier having an output that generates said harmonic frequency, and wherein said trap circuit is coupled at an output of said power amplifier (Column 5, lines 16-32).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fourtet et al. (U.S. 6,625,470).

With respect to claim 8, the transmitter of Fourtet et al. is described above in the discussion of claim 1. Fourtet et al. disclose the frequency bands of the amplifier paths being 1800 MHz and 900 MHz not 5 GHz and 2.45 GHz. However, since both groups of frequencies share the same relationship to each other, being multiples of two, it would be obvious to one of ordinary skill in the art at the time of the applicant's invention to use Fourtet et al.'s multiple band transmitter in the 5 GHz and 2.45 GHz frequency bands in order to operate on the 802.11 communication standard.

With respect to claim 9, Fourtet et al. disclose that the two amplifier paths form a transmitter portion of dual band wireless local area network transceiver (Column 2, line 62 – Column 3, line 3).

**Conclusion**


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boesch et al. (U.S. 6,298,244) and Meadows (U.S. 6,091,966) disclose a dual band transmitter with two amplifier paths including a harmonic trap.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adeel Haroon whose telephone number is (571) 272-7405. The examiner can normally be reached on Monday thru Friday, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on (571) 272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AH  
4/10/06

  
4-16-2006

**NGUYENT.VO**  
**PRIMARY EXAMINER**